



# BBB Tank Services, Inc.

AST Services and New API Tanks



9633932

September 24, 2013

INGLESIDE CRUDE, LLC.  
801 Travis Street  
Suite 2100  
Houston, Texas 77002  
Attention Mr. Jonathan Carroll

Reference-	Proposal-	Tank Bottom Replacement
	Location	Ingleside, Texas
	Description	(1) 100'-0" Diameter x 40'-0" High Cone Roof Tank
	BBB Proposal-	N13-511 REVISION 9

Revision 7- A. Furnish and install a new tank bottom- slotted shell method of installation  
Removing Insulation for bottom work.  
B. Patch the existing tank bottom.

Revision 8- Clarifications

Revision 9- Change name to INGLESIDE CRUDE, LLC.  
Compare/Outline costs for repair and new tank bottom.

As per the instructions to bidder and API-653 latest standards we propose to furnish labor, materials and equipment to complete the following scope of work.

## A. TANK BOTTOM REPLACEMENT

1. Mobilize.
2. Conduct a site specific safety meeting to discuss safety issues involved with this project and the site rules, regulations for contractors and safety rules.
3. A jobsite JHA will be prepared by the BBB Foreman and his crew and preferably with the owner's representative, pointing out the possible hazards they will face in completing this task and remedies or safety steps to eliminate or limit those hazards
4. Receive and unload materials and equipment.
5. **INSULATION-** Remove one foot of insulation around the entire 1<sup>st</sup> shell course of the tank.
  - A. This is so the shell can be slotted uniformly and properly.
  - B. With the slotted shell method of bottom installation the existing shell nozzles and manways in the 1<sup>st</sup> shell course will have to be raised to API-650/API-653 spacing requirements.
  - C. Place insulation in plastic garbage bags and scrap bins for disposal by others.
  - D. Insulation clips will be required to be welded on the tank shell above where the insulation is removed so the balance of the insulation does not slip down.
6. **SLOT the SHELL-** Utilizing a track torch assembly slot the existing tank shell four (4) inches above the existing tank bottom.
7. **SAND-** Furnish and install four (4) inches of clean, dry sand over the existing tank bottom to support the new tank bottom and tank..
8. **BOTTOM-** Furnish and install a new 1/4" thick, Grade A36 Steel, lap welded, top side only, tank bottom.
9. Furnish and install new 4'-0 x 4'-0 x 3/8" thick load bearing plates under the (15) roof support columns including anti-slip clips.
10. Furnish and install a new tank bottom water draw off sump- 24" diameter x 12" deep.
11. Raise the existing manways and shell nozzles to API-653 requirements.
12. Furnish and install four (4) 1" leak detection 3000# couplings with plugs in the area between the new and existing tank bottoms.
13. Reinstall the door sheet.
14. Broom clean the tank.



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15. Tests include:
- a. Liquid penetrant testing of the new bottom corner weld.
  - b. Vacuum box testing of the new bottom weld seams.
  - c. X-ray of the door sheet as per API-653.
  - d. Visually check all of our work.
  - e. Hydrotest the tank. The Hydrotest is to be by others-BBB personnel are to witness the hydrotest-only or add \$(b) (4) for BBB personnel to furnish test blinds, gaskets and nuts and bolts.  
The water is to be furnished within 150lf of the tank and disposed of by others.
14. Clean up work site.
15. Demobilize.

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<b>BASE BID</b>	<b>Insulation Removal</b>
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Labor and Equipment
Materials
Sales tax
Duration

\$(b) (4)
\$(b) (4)
3 days week.

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<b>BASE BID</b>	<b>New Tank Bottom</b>
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(50 Hour Work Week)
Labor and Equipment
Materials, fabrication, freight, Consumables
TOTAL
Duration

\$(b) (4)
\$(b) (4)
6-7 weeks

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- |                    |                            |   |
|--------------------|----------------------------|---|
| <b>ALTERNATE 1</b> | <b>Overtime</b>            | Add \$(b) (4) for a 60 hour work week which would shorten the duration by one week.   |
| <b>ALTERNATE 2</b> | <b>Cathodic Protection</b> | Add \$(b) (4) for tank ballast type magnesium sacrificial anodes installed on top of the new tank bottom. (Material portion \$(b) (4)). |
| <b>ALTERNATE 3</b> | <b>HDPE Liner</b>          | Add \$(b) (4) if a 60 mil HDPE Liner. (Material portion \$(b) (4)).   |

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### B. PATCH THE EXISTING TANK BOTTOM

Our crew has found an additional 92 holes in the tank bottom and do not think the API-653 Inspection report is accurate at all.

- 1. Many holes are at the annular area and there are really thin metal areas in the this area, so we propose to remove and replace a 360 degree x 4'-0 wide annular sketch ring inside the tank.
- 2. There are 20+ areas that are fiberglassed that are covering holes and deeply pitted areas that need to have steel plates installed. Mostly 2'-0 x 2'-0 x 1/4" patch plates are required.
- 3. There are 40 plus additional holes that will require 12"x12" x 1/4" thick patch plates.
- 4. Add- The (15) roof support columns really need 4'-0 x 4'-0 x 3/8" load bearing plates installed under them.
- 5. A new 24" diameter x 12" deep sump needs to be installed.
- 5. And for safety reasons the fiberglass epoxy phenolic coating (See REVISION 6) and the Cathodic protection ALTERNATE 2 anodes (above) should be installed. (Not included in the Patch tank bottom pricing



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<b>BASE BID</b>	<b>PATCH Tank Bottom</b>	
	(50 Hour Work Week)	
	Labor and Equipment	\$(b) (4)
	Materials, fabrication, freight, Consumables	
	TOTAL	\$
	Add Sales Tax	\$
	Duration	4-5 weeks (Plus the Hydrotest)
Add Load bearing plates under the roof support columns	\$(b) (4)	sales tax. (Material \$ (b) (4) .
Add Fiberglass Epoxy Phenolic Coating-		sales tax. (Material \$ .
Add Cathodic Protection- Tank ballast anodes-		sales tax. (Material \$ .

### Terms and Conditions

1. Sales and/or Use Tax is not included in our proposal. Add 8.25% to each item total.
2. Our price does not include a dedicated fire, hole, bottle or safety watch except when. If required this is to be furnished by the owner or furnished by BBB at \$(b) (4) per day- one day minimum for each required. BBB only includes a fire/combination hole watch until the door sheet is cut and for when it has been reinstalled.
3. Supplied air or working in supplied air is not included in this proposal.
4. Lead or asbestos abatement is not included.
5. Surface preparation or painting is not included.

Thank you for the opportunity to quote this project. Hopefully we will be the successful bidder and we will have the opportunity to work with you on this project.

Sincerely,  
BBB Tank Services, Inc.

Robert E. Swain  
Project Manager



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COMPARISON	PATCH/REPAIR BOTTOM	NEW TANK BOTTOM
* 1. Insulation Removal	\$ (b) (4)	\$ (b) (4)
2. Repair/New Tank Bottom	\$	\$
** 3. HDPE Liner (Option)	\$	\$
*** 4. Cathodic Protection (Option)	\$	\$
5. Support Column Bearing Plates (Option)	\$	\$
*A 6. Epoxy Phenolic/Fiberglass Liner (Option)	\$ Suggested)	\$
*B 7. Hydrotest (Option)	\$	\$
8. Adjusting Nozzles/Manways to API-653	\$ f required	\$ Clean Out Door)
9. New 24" x 12" sump	\$	\$
10. Overtime 6-10's (Optional)	\$	\$
SubTotal	\$	\$
Add Sales Tax		
TOTAL	\$	\$

\* One foot of insulation removal is required for the annular sketches, the first shell course for the new bottom.

\*\* An HDPE liner over the existing tank bottom is suggested since it has numerous holes and deep pits that would leak if the new bottom ever failed and the HDPE Liner would hold the product until the bottom could be repaired and there would not be environmental issues.

\*\*\* Cathodic Protection in this sacrificial anode form protects the new bottom for 20+ years and is suggested for the repaired bottom also.

\*A This is designed to last 10-20 years and is optional for the new tank bottom and suggested for the repaired bottom.

\*B BBB personnel will witness the hydrotest if Ingleside Crude personnel do it. Otherwise BBB furnished nuts, bolts, test blinds and test gaskets and hoses (150lf) to do the hydrotest. Ingleside Crude furnished and disposes of the hydrotest water in either option.